Summary

HCV has been encountered worldwide with WHO estimates of 200 million infected patients worldwide . In ٦٧-85% 0f acute hepatitis C infected individuals persists beyond 6 months and becomes chronic, while 85% of infected individuals start as chronic hepatitis C. This can progress to to liver fibrosis and cirrhosis (20%) and then to decompensated cirrhosis (5%) or hepatocellular carcinoma (1%).

The aim of treatment in patients with chronic hepatitis C is eradication of serum HCV RNA with improvement in health related quality of life and to prevents the development of cirrhosis or hepatocellular carcinoma. The addition of ribavirin to INF results in two to three folds higher sustained virological response rates compared with INF monotherapy . the recent availability of the modified longer acting pegylated INF has further enhanced virological response rates when used in combination with ribavirin leading to a sustained virological response in more than 50% of infected patients.

In this study, a trial was done to find out the occurrence of anemia as a side effect of antiviral therapy (Peg INF plus ribavirin) in treatment of chronic hepatitis C infected patients.

This study was done on 300 patients of chronic HCV infection. 200 patients as a study group who were receiving antiviral therapy (Pegylated Interferon injections once a week, plus 800-1200mg of ribavirin daily for 48th weeks, and the dosage of ribavirin was modified if the hemoglobin concentration fell to <10 g/dl), and 100 patients as a control group who did not receive antiviral therapy, then both groups were divided according to sex type to subgroups male and female to become 155 male study subgroup , 45

female study subgroup , 77 male control subgroup and 23 female study subgroup. All patients were subjected to :

- Full history taking.
- Complete clinical examination.
- Laboratory investigations including:
    - Complete blood count (CBC).
    - Liver function tests(ALT, AST, Alk. Phosphatase, T. billirubin, Prothrombin time and Albumin level)
    - Anti nuclear antibody "ANA"
    - PCR for HCV RNA
    - TSH (Thyroid stimulating hormone)
    - Pelviabdominal Ultrasound
    - Liver biopsy

This study showed that:

- The percent of anemia (< 13 g/dl) in male subgroup was 75.4% at 12^{th} week, 80.6% At 24^{th} week , 89.6% at 36^{th} week and 79.3% at 48^{th} week**.**
- The percent of anemia(< 11 g/dl) in female subgroup was 53.3% at 12^{th} week , 60% at 24^{th} week, 73.3% at 36^{th}week and 66.6% at 48^{th} week**.**
- The Percent of anemic patients that need to reduce ribavirin dose to 600 mg/day (Hb % < 10 g/dl) was higher in female subgroup (53%) (Number=24/45) than male subgroup (33%) (Number=52/155) during the complete period of treatment.

- The Percent of anemic patients that need to discontinue ribavirin (Hb% < 8.5 g/dl) was higher in female subgroup (22.2%) (Number =10/45) than male subgroup (5.1%) (Number=8/155)) during the complete period of treatment.
- In male subgroup, the mean drop of Hb% in 1st month of treatment was 61% and in 2nd plus 3rd months of treatment was 22.5% in relation to the mean maximum Hb% drop during the complete period of treatment.
- In female subgroup , the mean drop of Hb% in 1st month of treatment was 57% and in 2nd plus 3rd months of treatment was 14.6% in relation to the mean maximum Hb% drop during the complete period of treatment.
- All severe anemic patients (< 8.5 g/dl) started to stop ribavirin dose treatment after 12th week and also they could complete the total course of treatment.